

ISS and Human Research Project Office Highlights March 18, 2011

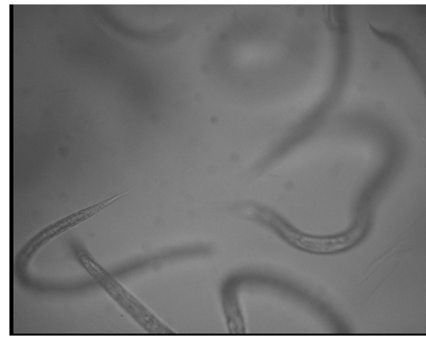
ISS Research Program

Light Microscopy Module (LMM) experiment operations continuing on ISS.

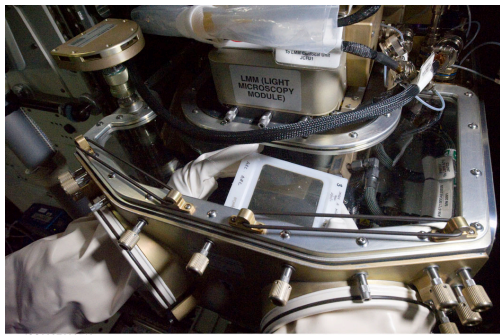
Flight operations with the Fluid Integrated Rack and (FIR/LMM) are continuing on ISS. The initial study of the six samples of *c. Elegans* was completed, and we are continuing this week with a second study of sample six to observe the eggs hatching on orbit. In the picture from last week, the eggs are small round objects mixed with the adult *c. Elegans*. Next week sample three (a sample designed to have organisms that express a fluorescent protein) will be observed using the fluorescent-band pass filter capability of LMM. A press release with NASA Headquarters is being prepared. A second set of LMM-Bio experiments is manifested on ULF-6/ STS-134. (POC: MAH/Ronald Sicker, (216) 433-6498)



Pictured is Paolo Nespoli, an astronaut with the European Space Agency and an Expedition 26 flight engineer. He is working with the LMM in the Fluids Integrated Rack (FIR) on the space station.



This first set of biological samples from the NASA Ames Research Center in Moffett Field, California is a set of *c. Elegans* samples, which were delivered to the space station by Discovery's STS-133 mission. This is an image from the first sample of mixed aged *c. Elegans*.



LMM enables scientists to explore life at a cellular level in the microgravity environment of the International Space Station. The crewmember is reaching through the glove ports to load sample three.



This microscope does more than just magnify—it provides containment of the live organisms. The small white particles are mixed-age *c. Elegans* (eggs, adolescents and adults).